SERVICE MANUAL

DD-1130

Stereo Double Cassette Deck

Sherwood

Specifications

Type
Soft touch front loading stereo double cassette deck with Dolby B/C NR system.

Track system
4 track, 2 channel stereo playback(Deck A) and recording/playback(Deck B)

Recording system
AC bias system(bias frequency: 105KHz)

Erasing system
AC system

Tape speed
1-7/8 ips(4.76cm/sec.)

Heads
Hard permalloy recording/playback head × 1
Hard permalloy playback head × 1
Double gap earsing head × 1

Motor
Electronic governor controlled DC motor

Wow and flutter
Less than 0.12%(WRMS)

Fast winding time
Approximately 120 seconds with C-60 cassette tape

Frequency Response—20dB REC

Normal tape	35-14,500Hz (40-13,500Hz+1, −3dB)
CrO_2 tape	35-15,000Hz (40-14,000Hz+1, −3dB)
Metal tape	35-16,000Hz (40-14,500Hz+1, −3dB)

0dB REC/PB Singal to noise ratio (REC/PB)

Metal tape	40-12,000Hz±3dB
Dolby NR C(Weighted)	72dB(Normal tape)
	74dB(CrO_2 tape)
	74dB(Metal tape)
Dolby NR B (Weighted)	62dB(Normal tape)
	64dB(CrO_2 tape)
	64dB(Metal tape)
Dolby NR OFF	53dB(Normal tape)
	55dB(CrO_2 tape)
	55dB(Meral tape)
Third harmonic distortion	Less than 1.0% at 1KHz, 0dB REC/PB
Input sensitivity/Impedance	Line 70mV/47K ohms
Output level/Impedance	Line 500mV/1.5K ohms
Built-in features	Dolby NR B/C system. Relay playback, Synchronous dubbing High speed dubbing selector LED peak level display (5×LEDS×2) 2-push in type tape selector (Norm, CrO_2, metal) for B Deck, EQ selector for A deck
Power consumption	12Watts
Dimensions	440(W)×118(H)×225(D)mm 17.3(W)×4.6(H)×8.9(D)inches
Weight	4.1kg

Note: Specifications and design subject to change without notice for improvements.

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Electrical Measurements & Adjustment

General conditions

The following general conditions apply to the electrical measurements and adjustments, unless explicitly stated otherwise.

—Ambient temperature 20 to 25°C.
—Dolby switch SW301 OFF
—The voltages have been measured relative to earth.
—Volume control recording level VR301:max.
—The measurements and adiustments are relate to the left hand channel.
The corresponding test points and adjusting elements for the right-hand channel are given in brackets.

Required test equipment and test cassettes

—LF generator.
—AC milivoltmeter(mV-meter).
—Wow-and-flutter-meter.
—Dolby Ref tape TCC-130.
—Multmeter
—Frequency counter.

Adjustments	Cassette	Recorder in position	Apply signal to	Measure on	Read on	Adjust with	Adjust to
Head Azimuth	TCC-153 10KHz (A·BEX)	Play A (Play B)		TP3 (TP4)	ACmV-meter	Head adjusting screw	Max *a ● Lissajous' figure become a straight line with an angle 45degrees
Playback speed normal	TCC-111 3KHz (A·BEX)	Play A or B		TP3 or TP4	Freq Counter	VR107	3000Hz *b ±30Hz
Playback sensitivity	TCC-130 400Hz 0dB (A·BEX)	Play B		TP3 (TP4)	ACmV-meter	VR101 (VR102)	245mV
f.OSC	MA-60(TDK)	Rec		CNT104	Freq Counter	L111	105KHz
105KHz trap suppression	MA-60(TDK)	Rec		TP7 (TP8)	ACmV-meter	T103 (T104)	min
Target value Bias B-deck only	Normal	Rec		TP1L (TP2)	ACmV-meter	VR105 (VR106)	4mV
	CrO_2	Rec				VR108	6mV
	Metal	Rec				VR109	8mV
Recording sensitivity		Rec+Play	400Hz to LINE IN		ACmV-meter	LF generator	245mV
				TP5 (TP6)	ACmV-meter	VR103 (VR104)	
		Play		TP3(TP4)	ACmV-meter		245mV *c
Bias		Rect Play		TP1 (TP2)	ACmV-meter	See target Value bias	
			400Hz to LINE IN	TP3 (TP4)	ACmV-meter	LF generator	24.5mV
			40Hz -63KHz 10KHz-12KHz 14KHz-16KHz to LINE IN	Record a number of frequencies with the same input voltage and play them back			
		Play		TP3 (TP4)	ACmV-meter		If necessary repeat bias adujstment *d
19KHz suppression		Rec SW301 Dolby NR SW ON	400Hz to LINE IN	TP3 (TP4)	ACmV-meter	LF generator	245mV
			19KHz to LINE IN	TP3 (TP4)	ACmV-meter	T101 (T102)	min

Notes:

*a. Prior to any measurement or adjustment with the tape running, heads and tape guides should be degaussed and cleaning.

b. The max permissible speed variation ±0.5%. Moreover the wow-and-flutter can be read.

c. The voltage on TP3(TP4) should read 245mV±0.25dB. If this is not the case reduce the LF signal(bias disabled) by as many dB's as the reading was too low or too high by means of VR103(VR104)

d. When the channel is adjusted this may slightly affect the adjustment of the other channel.
If the adjustment is correct thd frequency response curve will be similar to curve b in Fig. 1 distortion ≤ 3%

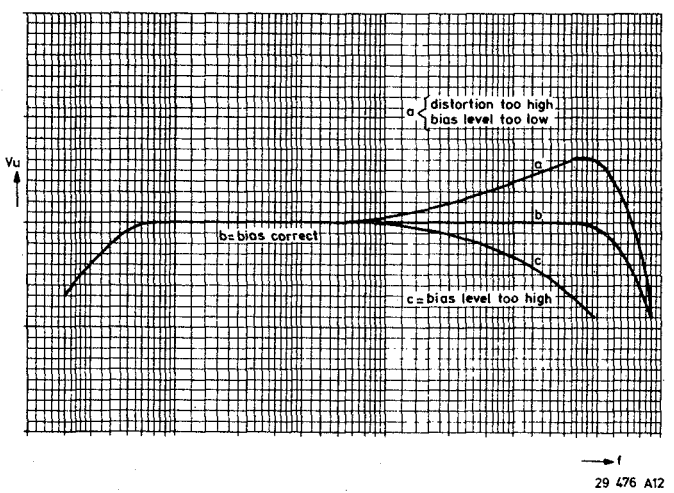


Fig. 1

Electrical Parts List & Top View of P.C Boards

MAIN BOARD 4002315200

Ref.No.	Parts No.	Description	Position
• ICS			
IC101	2168022118	BA 3416 BL	3C
IC102	2168601105	GD 7815	1A
IC103	2168000108	CX 20187	3E
• TRANSISTORS			
Q101,Q102	2208606104	KTC 1815Y	3C
Q109,Q110	2208606104	KTC 1815Y	4C
Q111,Q122	2208606104	KTC 1815Y	4B,3B
Q125,Q126	2208606104	KTC 1815Y	2F,2E
Q127,Q128	2208606104	KTC 1815Y	2F,2E
Q143,Q144	2208606104	KTC 1815Y	4E
Q103,Q104	2008610102	2SD 1302S	3B
Q105,Q106	2008609101	MPS A05	3B,2B
Q107,Q108	2008609101	MPS A05	3B
Q117,Q118	2008609101	MPS A05	2A
Q112,Q113	2008622106	DTC 114YS	3D,3C
Q121,Q124	2008622106	DTC 114YS	3B,1E
Q129,Q130	2008622106	DTC 114YS	2F,2D
Q131,Q132	2008622106	DTC 114YS	2F,2D
Q137,Q138	2008622106	DTC 114YS	1E
Q114,Q116	2008622108	DTC 114TS	2B,3D
Q119,Q120	2008622108	DTC 114TS	4B
Q133,Q134	2008622108	DTC 114TS	2F,2D
Q135,Q136	2008622108	DTC 114TS	1F,1D
Q139,Q140	2008622108	DTC 114TS	1E
Q141,Q142	2008622108	DTC 114TS	1F,1D
Q115	2008209101	MPS A55	2C
Q123	2208206105	KTA 1015Y	3B
• DIODES			
D101,D102	2158106100	1N 4002	2A
D103,D104	2058106100	1N 4002	2A
D116	2058106100	1N 4002	2C
D105,D107	2058306101	1N 4148	3A,3D
D108,D109	2058306101	1N 4148	3C,4D
D110,D111	2058306101	1N 4148	1D
D113,D114	2058306101	1N 4148	1F,2C
D106	2058599107	Zener DZ9.1BM	3A
D112	2058599121	Zener DZ6.8BM	4B
D115	2058599100	Zener DZ9.3BM	2C
• COILS			
L101,L102	2648601710	Inductor 21mH	3F,3D
L103,L104	2648601310	Inductor 4.5mH	2F,2E
L105,L106	2648601310	Inductor 4.5mH	1F,1E
L107,L108	2648601080	Inductor 3.5mH	1F,1E
L109,L110	2648601080	Inductor 3.5ml	1F,1E
L111	2638601150	Bias OSC	2B
T101,T102	2658301120	MPX Filter	3F,3D
T103,T104	2658501080	Record Trap	2B
• RESISTORS			
VR101	3248322320	SEMI 22K ohm	4D
VR102	3248322320	SEMI 22K ohm	4D
VR103	3248322320	SEMI 22K ohm	2E
VR104	3248322320	SEMI 22K ohm	2E
VR105	3248322420	SEMI 220K ohm	2B
VR106	3248322420	SEMI 220 ohm	2B
VR107	3248322220	SEMI 2.2K ohm	1C
VR108,	3248322120	SEMI 220 ohm	1D
VR109	3248322120	SEMI 220 ohm	1D
R101,R102	3069104970	C.F 100K ohm 1/6W	3C
R118,R119	3069104970	C.F 100K ohm 1/6W	3C,4B
R167	3069104970	C.F 100K ohm 1/6W	3E
R103,R104	3069103970	C.F 10K ohm 1/6W	3C
R105,R125	3069103970	C.F 10K ohm 1/6W	3D
R126,R129	3069103970	C.F 10K ohm 1/6W	3D,4C
R130,R131	3069103970	C.F 10K ohm 1/6W	4C,3D
R135,R145	3069103970	C.F 10K ohm 1/6W	3D,3B
R146,R152	3069103970	C.F 10K ohm 1/6W	3B,2C
R154,R155	3069103970	C.F 10K ohm 1/6W	3D
R190,R193	3069103970	C.F 10K ohm 1/6W	3D,2E
R194	3069103970	C.F 10K ohm 1/6W	2E
R106,R107	3069100970	C.F 10 ohm 1/6W	3B
R140,R166	3069100970	C.F 10 ohm 1/6W	2A,3D
R108,R109	3069102970	C.F 1K ohm 1/6W	3B
R132	3069102970	C.F 1K ohm 1/6W	4B

Ref.No.	Parts No.	Description	Position
R110,R112	3069472970	C.F 4.7K ohm 1/6W	3B
R116,R117	3069472970	C.F 4.7K ohm 1/6W	4C,4B
R153	3069472970	C.F 4.7K ohm 1/6W	1C
R111,R113	3069332970	C.F 3.3K ohm 1/6W	3B
R122,R123	3069332970	C.F 3.3K ohm 1/6W	4C,4B
R141,R142	3069332970	C.F 3.3K ohm 1/6W	1C
R170,R171	3069332970	C.F 3.3K ohm 1/6W	3E,3F
R199,R200	3069332970	C.F 3.3K ohm 1/6W	2F,2D
R215,R216	3069332970	C.F 3.3K ohm 1/6W	2F,2D
R219,R220	3069332970	C.F 3.3K ohm 1/6W	1F,1D
R225,R226	3069332970	C.F 3.3K ohm 1/6W	1F,1E
R227,R228	3069332970	C.F 3.3K ohm 1/6W	1F,1E
R114,R115	3069330970	C.F 33 ohm 1/6W	3C,3B
R120,R121	3069222970	C.F 2.2K ohm 1/6W	4C,3B
R201,R202	3369222970	C.F 2.2K ohm 1/6W	2F,2D
R221,R220	3069222970	C.F 2.2K ohm 1/6W	1F,1D
R229,R230	3069222970	C.F 2.2K ohm 1/6W	1F,1D
R124,R127	3069562970	C.F 5.6K ohm 1/6W	3C
R217,R218	3069562970	C.F 5.6K ohm 1/6W	2F,1D
R233,R234	3069562970	C.F 5.6K ohm 1/6W	2B
R128,R138	3069333970	C.F 33K ohm 1/6W	4C,2A
R139,R158	3069333970	C.F 33K ohm 1/6W	2A,4F
R159	3069333970	C.F 33K ohm 1/6W	4F
R133,R134	3069473970	C.F 47K ohm 1/6W	4C,3C
R160,R162	3069473970	C.F 47K ohm 1/6W	1F,E1
R160,R165	3069473970	C.F 47K ohm 1/6W	3F,F1
R163,R165	3069473970	C.F 47K ohm 1/6W	3F,1F
R136,R137	3069223970	C.F 22K ohm 1/6W	3E,3C
R143,R147	3069223970	C.F 22K ohm 1/6W	4B,3B
R148,R235	3069223970	C.F 22K ohm 1/6W	3B,1F
R236,R237	3069223970	C.F 22K ohm 1/6W	1F,1D
R238	3069223970	C.F 22K ohm 1/6W	1F
R144	3069334970	C.F 330K ohm 1/6W	4B
R149	3069331970	C.F 330 ohm 1/6W	3A
R150,R213	3069101970	C.F 100 ohm 1/6W	2C,2F
R214	3069101970	C.F 100 onm 1/6W	2D
R151	3069432970	C.F 4.3K ohm 1/6W	2C
R156	3069563970	C.F 56K ohm 1/6W	3C
R157	3069151970	C.F 150 ohm 1/6W	1D
R161,R164	3069153970	C.F 15K ohm 1/6 W	1F,1E
R186,R187	3069153970	C.F 15K ohm 1/6W	4E,4F
R168,R169	3069682970	C.F 6.8K ohm 1/6 W	3E,3F
R172,R173	3069682970	C.F 6.8K ohm 1/6 W	3E,3F
R180,R181	3069682970	C.F 6.8K ohm 1/6 W	3D,3F
R174,R175	3069392970	C.F 3.9K ohm 1/6 W	3E,3F
R188,R189	3069302970	C.F 3.9K ohm 1/6 W	4E
R197,R198	3069392970	C.F 3.9K ohm 1/6 W	2F,2D
R176,R177	3069471970	C.F 470 ohm 1/6W	3E,3F
R178,R179	3069272970	C.F 2.7K ohm 1/6W	3D,3F
R182,R183	2069681970	C.F 680 ohm 1/6W	3E,3F
R184,R185	30691522970	C.F 1.5K ohm 1/6W	4E
R191	3069100472	M.O 10 ohm 1/6W	2A
R192	3069330472	M.O 33 ohm 1W	2A
R195,R196	3069224970	C.F 220K ohm 1/6W	2F 2D
R205,R206	3069224970	C.F 220K ohm 1/6W	2E
R211,R212	3069224970	C.F 220K ohm 1/6W	2F,2D
R203,R204	3069393970	C.F 39K ohm 1/6W	2E
R207,R208	3069822970	C.F 8.2K ohm 1/6W	2E
R209,R210	3069122970	C.F 1.2K ohm 1/6W	2F,2E
R223,R224	3069470970	C.F 47 ohm 1/6W	E1
R231,R232	3069182970	C.F 1.8K ohm 1/6W	1F,1E
• CAPACITORS			
C101,C102	3479331130	Ceramic 330pF 50V	3C
C103,C104	3579821230	Ceramic 820pF 50V	3C
C105,C106	3409210121	Elect AF SA 100μF 10V	3B,3C
C120,C134	3409210121	Elect AF SA 100μF 10V	3B,3A
C144,C145	3409210121	Elect AF SA 100μF 10V	3E,3F
C107,C108	3679273120	Mylar 0.027μF 100V	3B,3C
C187,C188	3679273120	Mylar 0.027μF 100V	1F,1D
C109,C132	3479222041	Elect AF SA 22μF 25V	3B,2C
C133	3479222041	Elect AF SA 22μF 25V	3D
C110,C152	3479247871	Elect AF SA 0.47μF 50V	3C,3E
C153,C175	3479247871	Elect AF SA 0.47μF 50V	3F,2F
C176	3479247871	Elect AF SA 0.47μF 50V	2E
C111,C114	3479210061	Elect AF SA 10μF 35V	4B,4D
C115,C116	3479210061	Elect AF SA 10μF 35V	4D,4B
C117,C118	3479210061	Elect AF SA 10μF 35V	3C,1F
C119,C205	3479210061	Elect AF SA 10μF 35V	4C,1F
C204,C205	3479210061	Elect AF SA 10μF 35V	1E,2D
C206	3479210061	Elect AF SA 10μF 35V	2D

Ref.NO.	Parts No.	Description	Position
C112,C113	3679223120	Mylar 0.022μF 100V	4C,4B
C173,C174	3069223120	Mylar 0.022μF 100V	2F,2E
C197,C198	3069223120	Mylar 0.022μF 100V	1F,1E
C121,C122	3579102230	Ceramic 1000pF 50V	3C,3B
C123,C124	3579471130	Ceramic 470pF 50V	2B
C125	3609272130	Mylar 0.0027μF 160V	2B
C126,C135	3479210971	Elect AF SA 1μF 50V	2A,3F
C168,C169	3479210971	Elect AF SA 1μF 50V	4E
C127,C128	3679562120	Mylar 0.0056μF 100V	2A
C129,C130	3679103120	Mylar 0.01μF 100V	2A
C166,C167	3679103120	Mylar 0.01μF 100V	2E,
C183,C184	3679103120	Mylar 0.01μF 100V	2F,2D
C185,C186	3579103120	Mylar 0.01μF 100V	1F,1D
C131,C203	3479233031	Elect AF SA 33μF 16V	4B,1E
C136,C137	3479247971	Elect AF SA 4.7μF 50V	4F,4E
C138,C139	3479247971	Elect AF SA 4.7μF 50V	3E,4E
C140,C141	3479247971	Elect AF SA 4.7μF 50V	3E,3F
C170,C171	3479247971	Elect AF SA 4.7μF 50V	4E
C177,C178	3479247971	Elect AF SA 4.7μF 50V	2F,2E
C181,C182	3479247971	Elect AF SA 4.7μF 50V	2F,2E
C210,C211	3479247971	Elect AF SA 4.7μF 50V	2E
C143,C142	3479222971	Elect AF SA 2.2μF 50V	3E,3F
C146,C147	3679332120	Mlyar 0.0033μF 100V	3D,3F
C148,C149	3579681230	Ceramic 680pF 50V	3D,3F
C150,C151	3679472120	Mylar 0.0047μF 100V	3E,3F
C208,C212	3679472120	Mylar 0.0047μF 100V	3E,3F
C154,C155	3479215871	Elect AF SA 0.15μF 50V	3D,3F
C156,C157	3679153120	Mylar 0.015μF 100V	3E,3F
C191,C192	3679153120	Mylar 0.015μF 100V	1F,1D
C158,C159	3479222871	Elect AF SA 0.22μF 50V	3E,3F
C160,C161	3679683120	Mylar 0.068μF 100V	3E,3F
C162,C163	3679473120	Mylar 0.047μF 100V	3E,3F
C189,C190	3679473120	Mylar 0.047μF 100V	1F,1D
C165,C164	3679682120	Mylar 0.068μF 100V	3E,3F
C172	3479210131	Elect AF SA 100μF 16V	2E
C179,C180	3679333120	Mylar 0.033μF 100V	2F,2E
C199,C200	3679333120	Mylar 0.033μF 100V	1F,1D
C193,C194	3679203120	Mylar 0.02μF 100V	1E
C195,C196	3679183120	Mylar 0.018μF 100V	1F,1E
C202	3479247031	Elect AF SA 47μF 16V	4E
C207	3409247161	Elect AF SA 470μF 35V	1A
C209	3409247131	Elect AF SA 470μF 16V	2A

Ref No.	Parts No.	Description	Position
Power Transformer	2828042001	Transformer	A
	2828045801	Transformer	B
	2828045201	Transformer	C,D,F
	2828048201	Transformer	E

※ **REMARK**

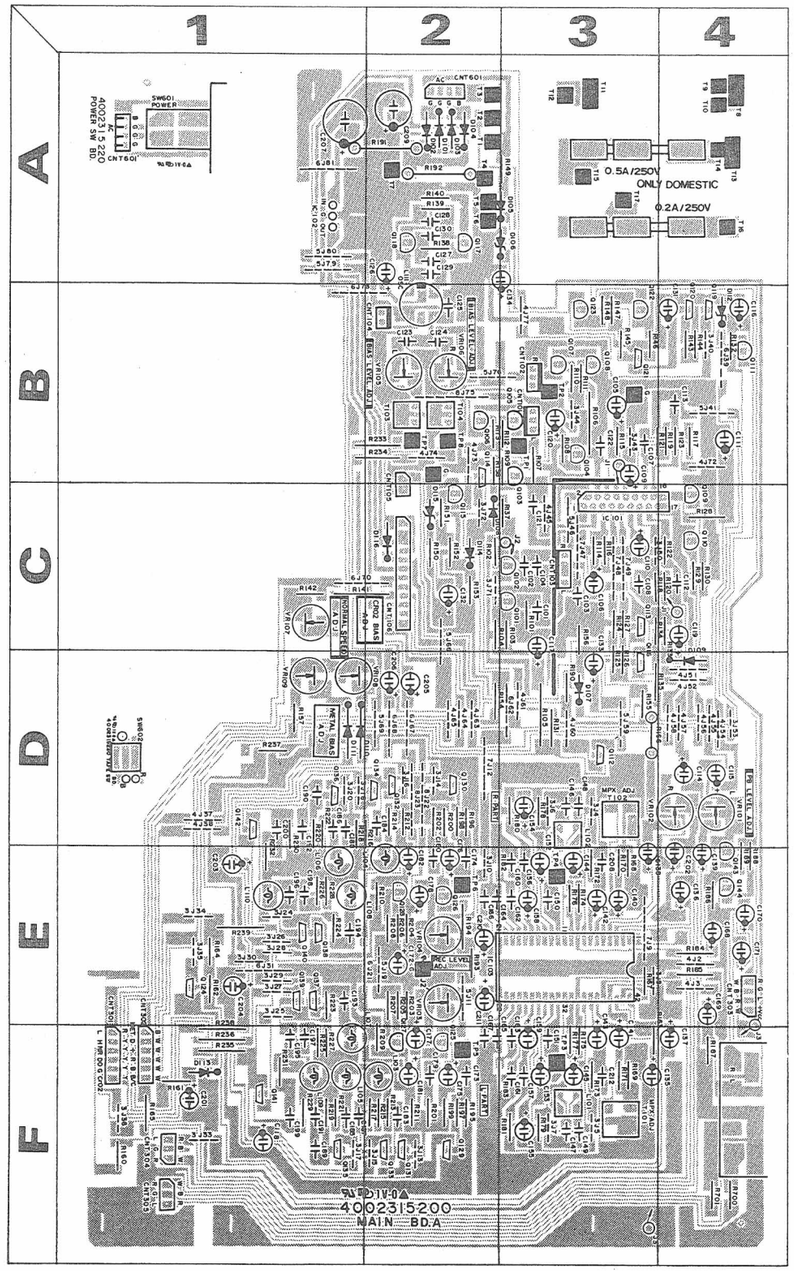
VERSION	COUNTRY	AC INPUTS	REMARK(SAFETY)
A	USA/CANADA	120V/60Hz	UL/CSA
B	U.S MILITARY /OTHER COUNTRIES	120V/60Hz, 220V/50Hz	
C	GENERAL EUROPE	220V/50Hz	IEC-65
D	GERMANY	220V/50Hz	FTZ
E	AUSTRALIA/BRITISH	240V/50Hz	BSI/SAA
F	SCANDINABIAN COUNTRY	220V/50Hz	Ⓢ Ⓝ Ⓓ ⓕ Ⓘ

FRONT BOARD 4002315210

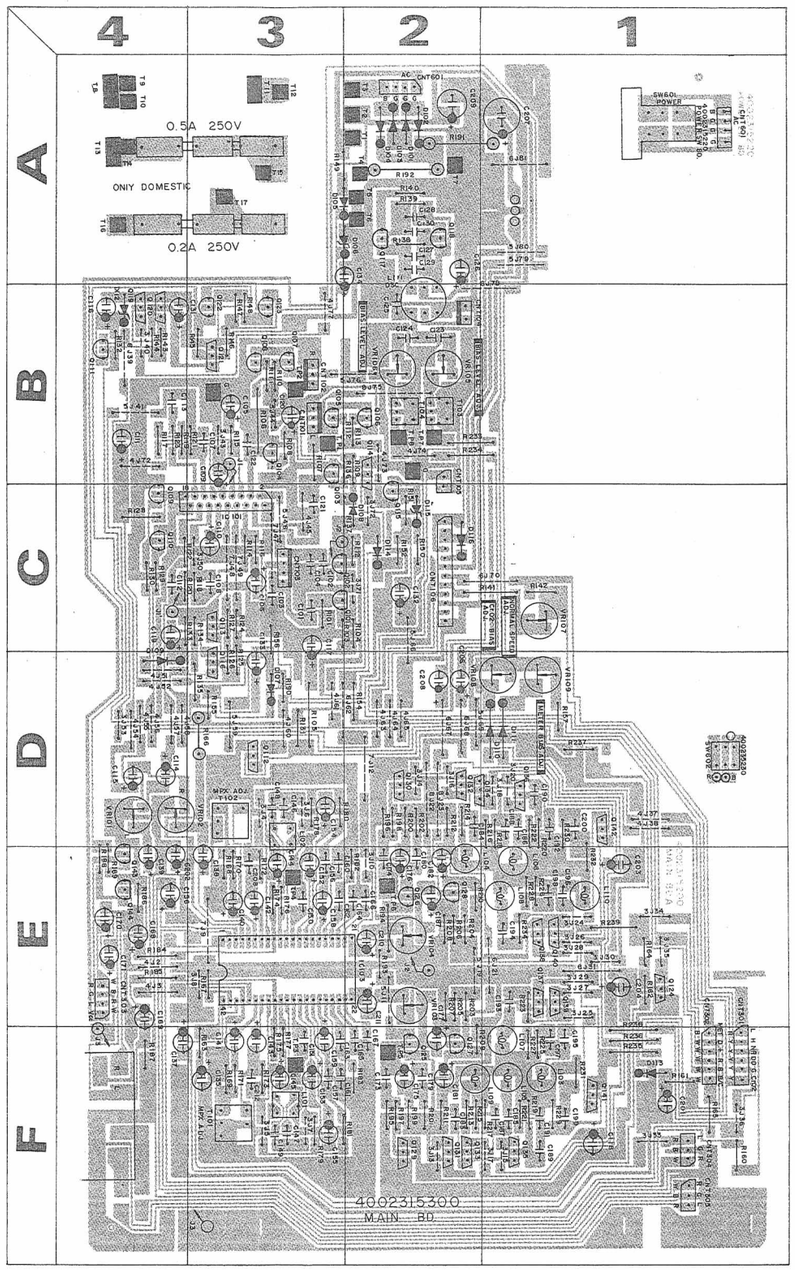
Ref.No.	Parts No.	Description	Position
•IC			
IC301,IC302	2168022114	BA 6124	
•LEDS			
D301	2308220130	LED SLV 56uRC	
D302,D303	2308220127	LED SLR 34uRC	
D307,D308	2308220127	LED SLR 34uRC	
D304,D305	2308221105	LED SLR 34DC	
D306,D309	2308221105	LED SLR 34DC	
D310,D311	2308221105	LED SLR 34DC	
•RESISTERS			
R301,R309	3069822970	C.F 8.2K ohm ⅛W	
R310	3069822970	C.F 8.2K ohm ⅛W	
R302	3069562970	C.F 5.6K ohm ⅛W	
R303	3069152970	C.F 1.5K ohm ⅛W	
R304	3069123970	C.F 12K ohm ⅛W	
R305,R306	3069103970	C.F 10K ohm ⅛W	
R307,R308	3069332970	C.F 3.3K ohm ⅛W	
•CAPACITORS			
C301	3579103530	Ceramic 0.01μF 50V	
C302,C303	3479210061	Elect AF SA 10μF 35V	

Top & Bottom View of P.C Boards

MAIN BOARD 4002315200(Top View)

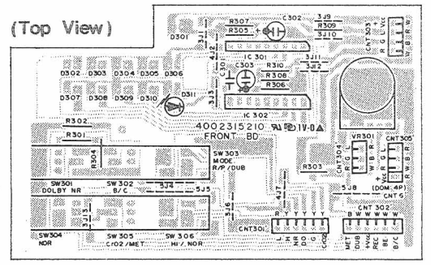


(Bottom View)

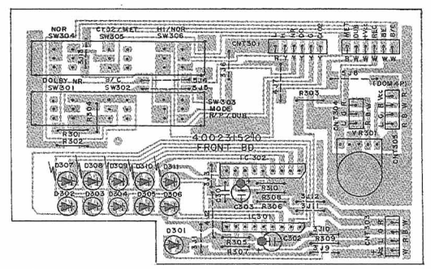


FRONT BOARD 4002315210

(Top View)



(Bottom View)



Parts Lis

NO.	PARTS NO.	
		Mf
1	5708901610	PBC
2	5708901620	
3	5708901630	
4	5708901640	PG:
5	5708901650	PBI
6	5708901660	PBI
7	5708901670	PBI
8	5798901680	PBI
9	5708901690	283
10	5708901700	PG:
11	5708901710	PG:
12	5708901720	PBI
13	5708901730	886
14	5708901740	PG:
15	5708901750	PBI
16	5708901760	PBI
17	5708901770	PBI
18	5708901780	PBI
19	5708901790	PBI
20	5708901800	PBI
21	5708901810	PBI
22	5708901820	PBI
23	5708901830	PBI
24	5708901840	PBI
	5708901841	PBI
	5708901842	PBI
	5708901843	PBI
25	5708901850	PBI
26	5708901860	PBI
27	5708901870	PG
28	5708901880	PBI
	5708901890	PBI
	2708901900	PBI
29	5708901910	PG
30	5708901920	PBI
31	5608901930	PBI
32	5708901940	PBI
33	5708901950	PBI
34	5708901960	PRI
	5708901961	PBI
	5708901962	PBI
	5708901963	PBI
	5708901964	PG
35	5708901970	PB
36	5708901980	PG
37	5708901990	PB
38	5708902000	PB
39	5708902010	PB
40	5708902020	PB
41	5708902030	PB
42	5708902040	PB
43	5708902050	PB
44	5708902060	PB
45	5708902070	PB
46	5708902080	PR
47	5708902090	PB
48	5708902100	PB
49	5708902110	PB
50	5708902120	PB
51	5708902130	PB
52	5708902140	
53	5708902150	PB
54	5708902160	PR
55	5708902170	PR
56	5708902180	PG
57	5708902190	LS
58	5708902000	PB
59	5708902210	M:
60	5708902220	PB
61	5798902230	PG
62	5708902240	PB
63	5708902250	PB
	5708902251	PR
	5708902252	PR
64	5708902260	PS
65	5708902270	PG
66	5708902280	PB
67	5708902290	PB
68	5708902300	PB

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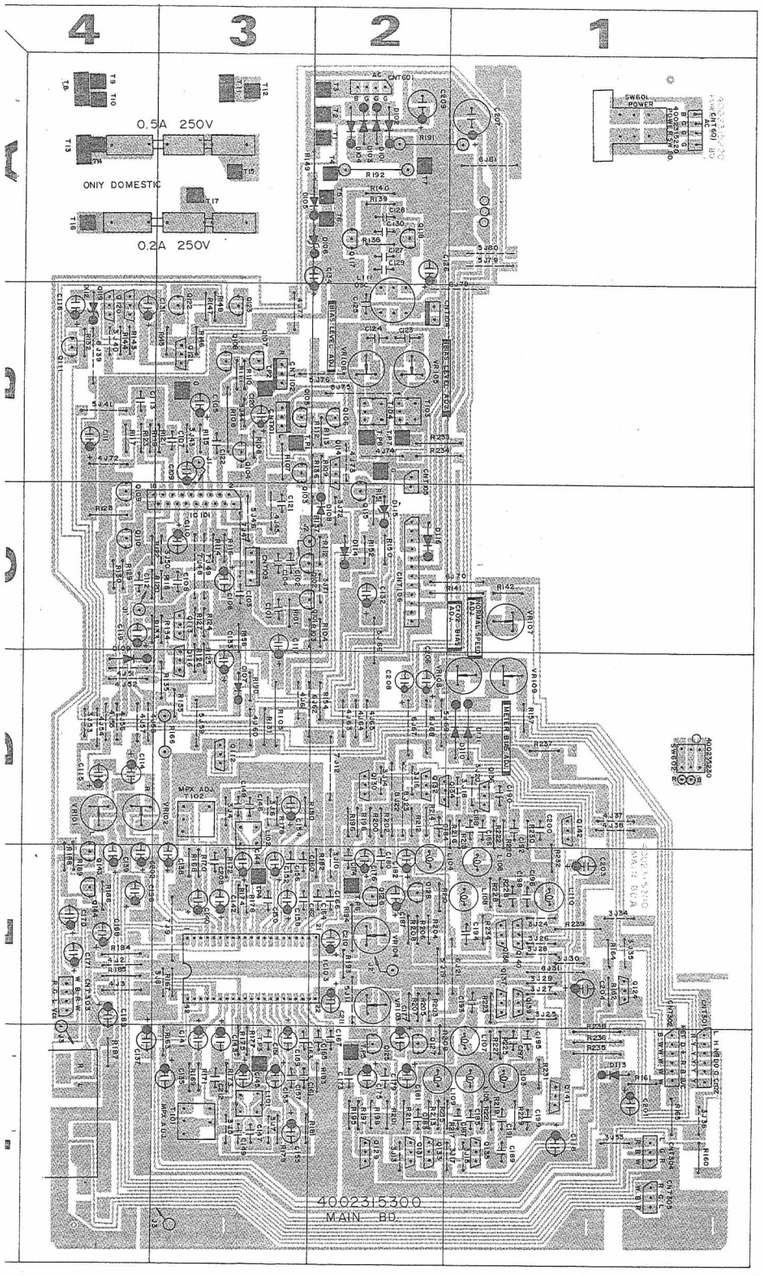
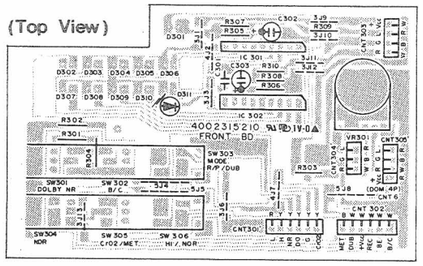
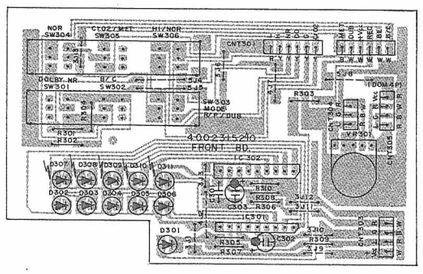


FRONT BOARD 4002315210

(Top View)



(Bottom View)



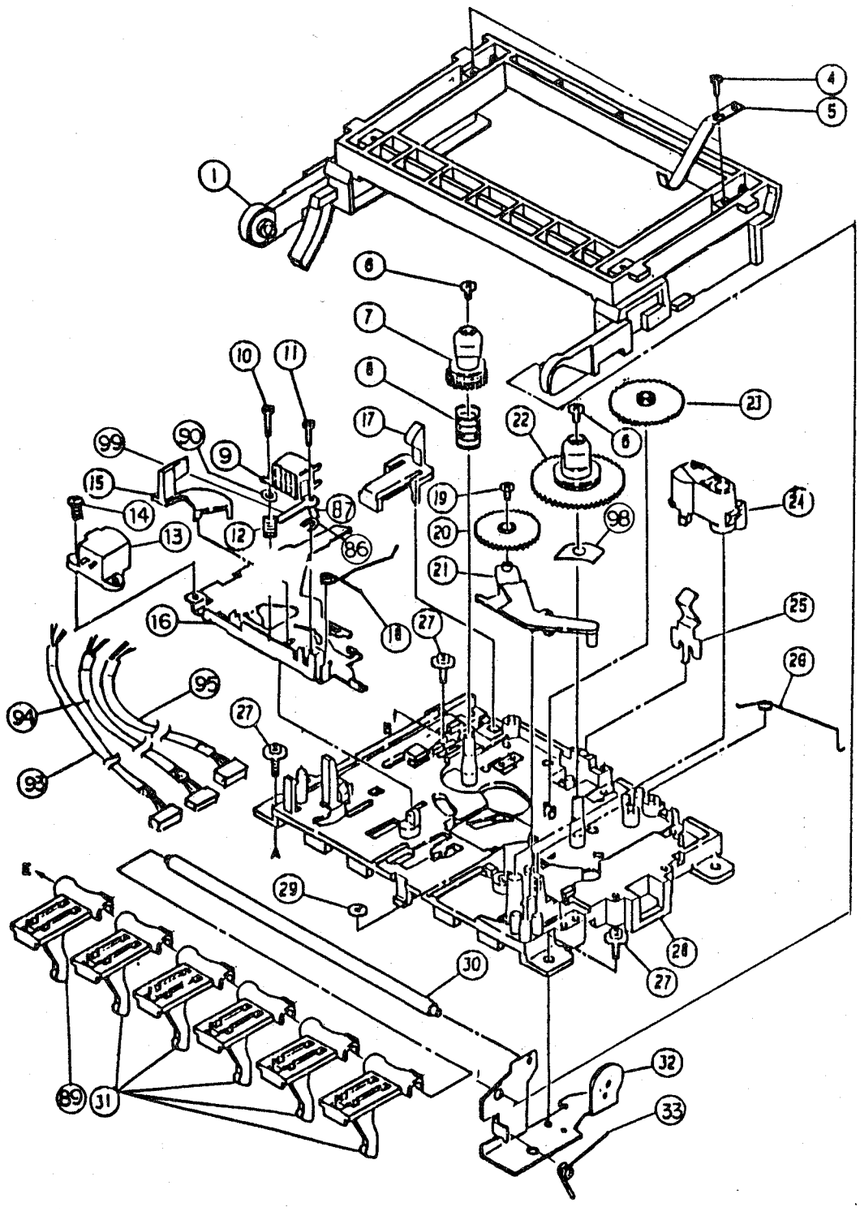
Parts List & Exploded View of Deck Mechanism Ass'y

NO.	PARTS NO.	DESCRIPTION Mfr's PARTS NO.	DESCRIPTION PARTS NAME	Q'TY
1	5708901610	PBC 1260	CASSETTE CASE	2
2	5708901620			
3	5708901630			
4	5708901640	PGST20A2005	T. SCREW	4
5	5708901650	PBE 14715	KEEP PLATE	4
6	5708901660	PBE 17014	BUSH B	4
7	5708901670	PBE 16646	S. REEL	2
8	5798901680	PBE 6602	C. SPRING	2
9	5708901690	283-30-24	R/P HEAD	2
10	5708901700	PGSN10A 2008	N. SCREW	2
11	5708901710	PGSP 10A 2003	P. SCREW	2
12	5708901720	PBE 6604	AZIMUTH C SPRING	2
13	5708901730	8860103	E HEAD	1
14	5708901740	PGSD 20A 2006	D. SCREW	1
15	5708901750	PBE 16647	TAPE SENSOR	2
16	5708901760	PBC 1257	HEAD BASE B	1
17	5708901770	PBE 16643	INTERLOCK ARM	1
18	5708901780	PBE 6911	PINCH SPRING	2
19	5708901790	PBE 4927	BUSH	2
20	5708901800	PBE 16641	IDIER GEAR	2
21	5708901810	PBD 1874	IDIER ARM	2
22	5708901820	PBE 03613	T. REEL ASS'Y	2
23	5708901830	PBE 16640	F. GEAR	2
24	5708901840	PBE 03278	PINCH ARM ASS'Y	2
	5708901841	PBD 10653	PINCH ARM	1
	5708901842	PBE D17174	PINCH ROLLER	1
	5708901843	PBE 17256	ROLLER SHUFT	1
25	5708901850	PBE 17000	CASSETTE SPRING	2
26	5708901860	PBF 6610	SPRING	2
27	5708901870	PGSD 15A 2606	D. SCREW	6
28	5708901880	PBD 0906	CHASSIS ASS'Y	2
	5708901890	PBB 1146	CHASSIS	1
	2708901900	PBE 17296	METAL	2
29	5708901910	PGWN 16S 060040S	N. WHAHER	2
30	5708901920	PBE 17107	BUTTON SGAFT W	2
31	5608901930	PBE 2966	BUTTON LEVER	10
32	5708901940	PBE 17076	BUTTON BRACKET R	1
33	5708901950	PBE 6690	SPRING	2
34	5708901960	PRE 03385	FW A'SSY W	2
	5708901961	PBD 10567	FLYWHEEL W	1
	5708901962	PBE 17099	FLYWHEEL RING	2
	5708901963	PBE 17100	CAPSTAN SHUFT W	1
	5708901964	PGSL 16A 2608	L. SCREW	2
35	5708901970	PBE 5241	BELT	1
36	5708901980	PGWP 21X 040013	P. WASHER	3
37	5708901990	PBD 1872	PLATE	2
38	5708902000	PBE 6687	SPRING	1
39	5708902010	PBE 6618	SPRING	1
40	5708902020	PBE 16644	EJECT ARM	2
41	5708902030	PBE 6831	T. SPRING	2
42	5708902040	PBE 16619	S ARM	2
43	5708902050	PBD 6671	C. SPRING	2
44	5708902060	PBD 1873	FUNCTION LEVER	2
45	5708902070	PBE 16625	PAUSE ARM	1
46	5708902080	PRE 16681	PAUSE LEVER	1
47	5708902090	PBE 16680	S. E LEVER	2
48	5708902100	PBE 17071	FF LEVER W	2
49	5708902110	PBE 6614	SPRING	2
50	5708902120	PBE 17072	REW LEVER W	2
51	5708902130	PBE 16686	PLAY LEVER	2
52	5708902140			
53	5708902150	PBE 17083	REC STOP LEVER	1
54	5708902160	PRE 16676	REC LEVER	1
55	5708902170	PRE 17300	SW PLATE	1
56	5708902180	PGSD 10A 2605	D.SCREW	1
57	5708902190	LSA 1119P	LEAF SWITCH	1
58	5708902000	PBD 0942	POWER ARM ASS'Y	2
59	5708902210	MSW 1342NCV	LEAF SWITCH	2
60	5708902220	PBE 6607	SPRING	2
61	5798902230	PGRE 30A	E RING	3
62	5708902240	PBE 15524	GEAR	2
63	5708902250	PBE 03265	P CONNECT LEVER ASS'Y	1
	5708902251	PRE 17067	P CONNECT LEVER	1
	5708902252	PRE 17077	SHUFT A	1
64	5708902260	PSGD 10A 2605	D SCREW	1
65	5708902270	PGRS 30P	CS RING	1
66	5708902280	PBE 6688	SPRING	1
67	5708902290	PBE 17066	LOCK PLATE	1
68	5708902300	PBE 17068	UNLOCK PLATE	1

NO.	PARTS NO.	DESCRIPTION Mfr's PARTS NO.	DESCRIPTION PARTS NAME	Q'TY
69	5708902310	PBD 10556	CONNECT LEVER	1
70	5708902320	PBE 03262	CONNECT PLATE A ASS'Y	
	5708902330	PBE 10557	CONNECT PLATE A	1
	5708902340	PBE 17078	SHUFT B	1
	5708902350	PBE 17658	DAMPER SHUFT	1
71	5708902360	PGSP 11A 2604	P. SCREW	2
72	5708902370	PBE 17073	MOTOR BRACKET	1
73	5708902380	PBE 17243	MOTOR PULLEY	1
74	5708902390	SHU 2L 01	MOTOR	1
75	5708902400	PBE 5242	BELT	1
76	5708902410	PBE 17070	PAUSE LEVER W	1
77	5708902420	PGSD 10A 2004	D SCREW	1
78	5708902430			3
79	5708902440	PBE 5239	BELT	1
80	5708902450	PBC 1236	HEAD BASE	1
81	5708902460	PBE 16624	TAPE GUIDE	1
82	5708902470	PBE 03284	BUTTON BRACKET L ASS'Y	
	5708902471	PBE 17075	BUTTON BRACKET L	1
	5708902472	PBE 17658	DAMPER SHUFT	1
83	8308902480	PBE 17140	SPACER	1
84	5708902490	PCE 6847	SPRING	1
85	5708902500			
86	5708902510	PBE 17501	SPACER C	3
87	5708902520	PBE 14710	LUG PLATE	1
88	5708902530	PBE 17112	BUSH C	2
89	5708902540	PBE 2969	BUTTON LEVER R	1
90	5708902550	PGWF 22A 050020	F WASHER	2
91	5708902560			
92	5708902570			
93	5708902580	PBE 30561	CONNECTOR	1
94	5708902590	PBE 30562	CONNECTOR	1
95	5708902600	PBE 30563	CONNECTOR	1
96	5708902610	PBE 30563	CONNECTOR	1
97	5708902620	PBE 3084	LUG PLATE	2
98	5708902630	PBE 17137	T PLATE SPRING	2
99	5708902640	PBE 17541	LUG PLATE	1
100	5708902650	LSA 1120RC	LEAF SWITCH	0
101	5708902660	PBE 6865	C. SPRING	2
102	5708902670	PBE 6689	T. SPRING	1
103	5708902680			
104	5708902690			
105	5708902770	PBE 14029	BELT	1
106	5708902710	ILG 2PS 3T 2	CONNECTOR PIN	1
107	5708902720	ILG 3PS 3T 2	CONNECTOR PIN	1
108	5708902730	ILG 4PS 3T 2	CONNECTOR PIN	1

***REMARK**

MODEL NO: 4MW47C-23
MADE BY KOREA PIGEON LTD.CO.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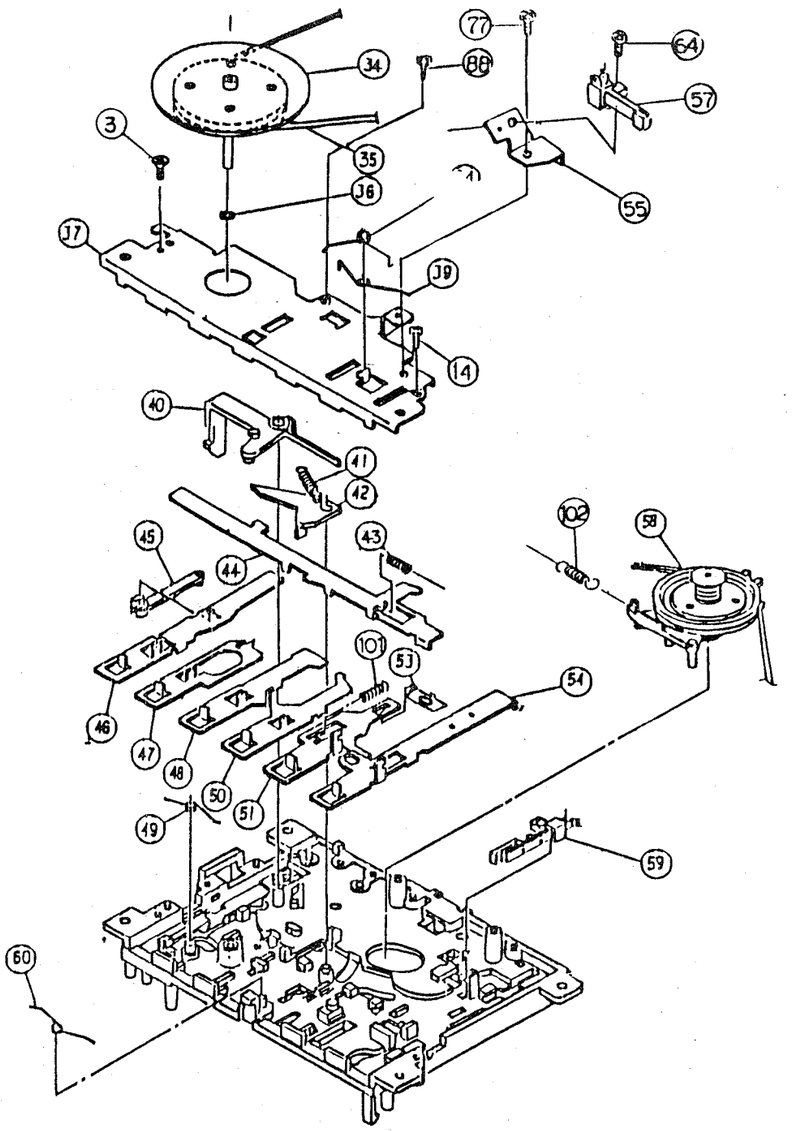
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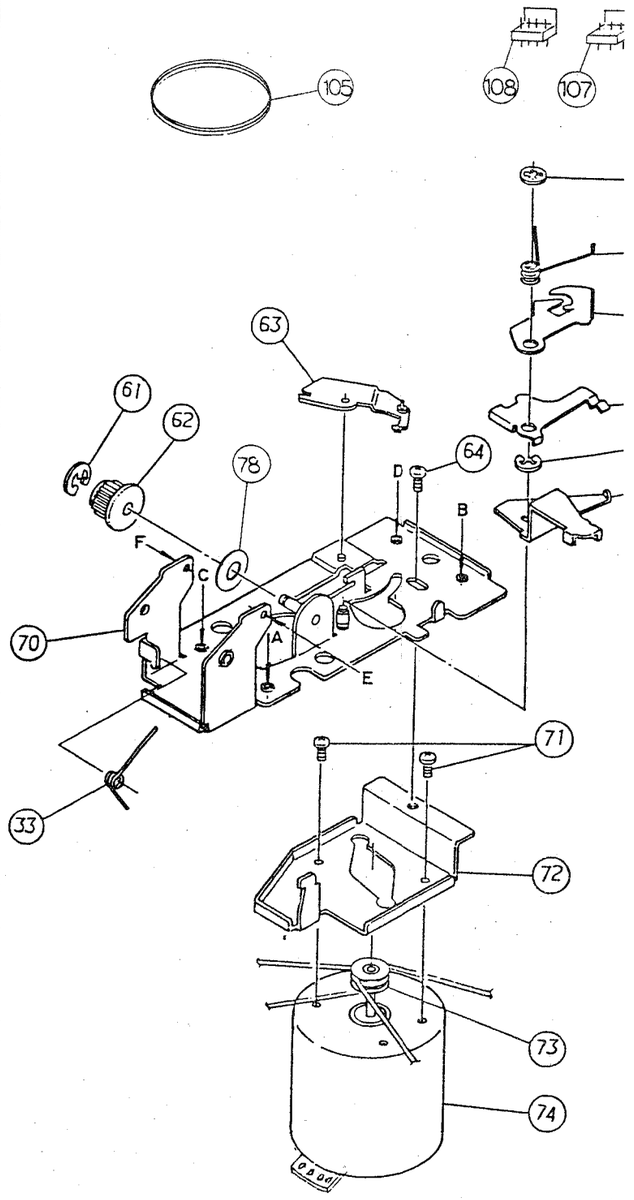
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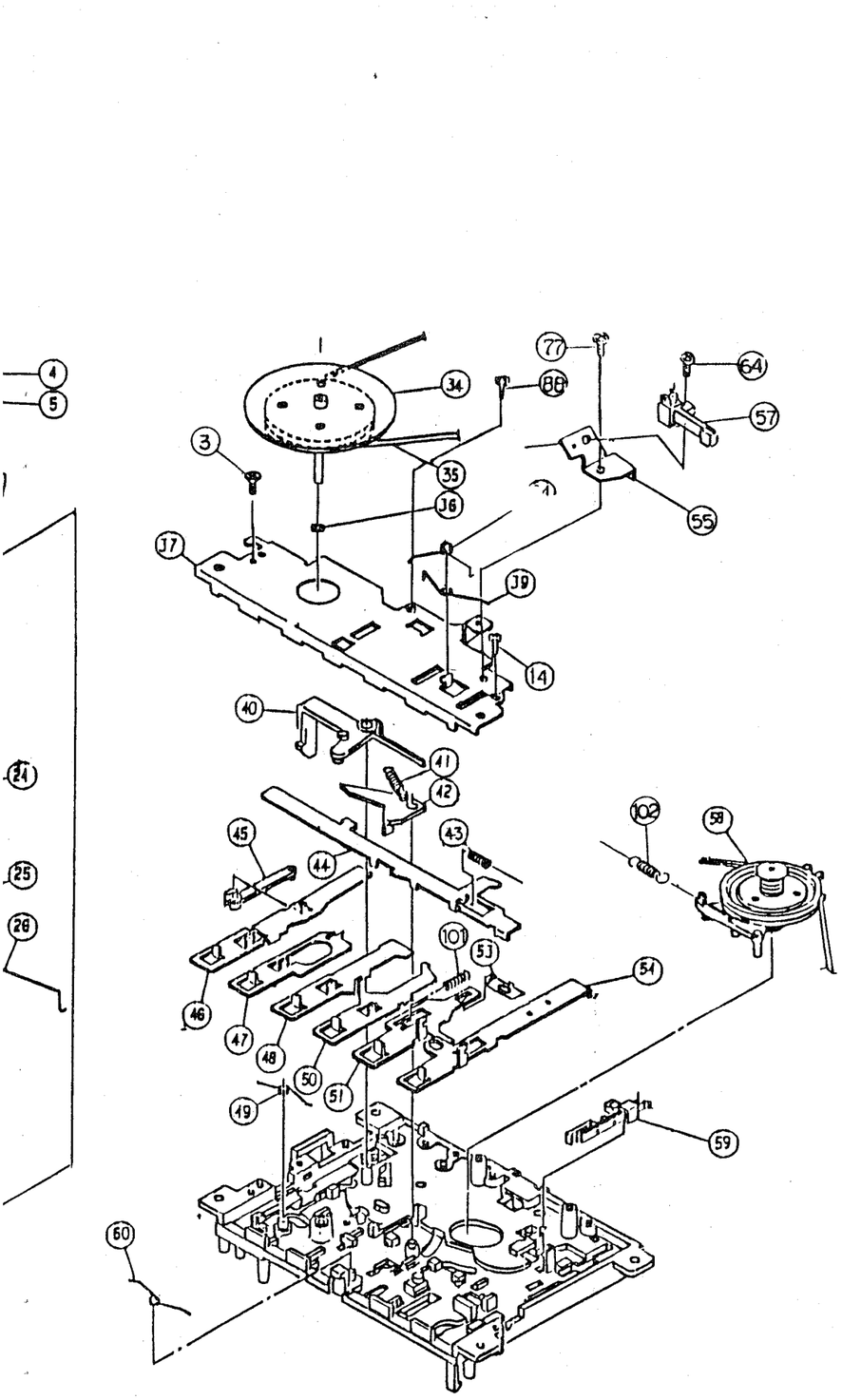
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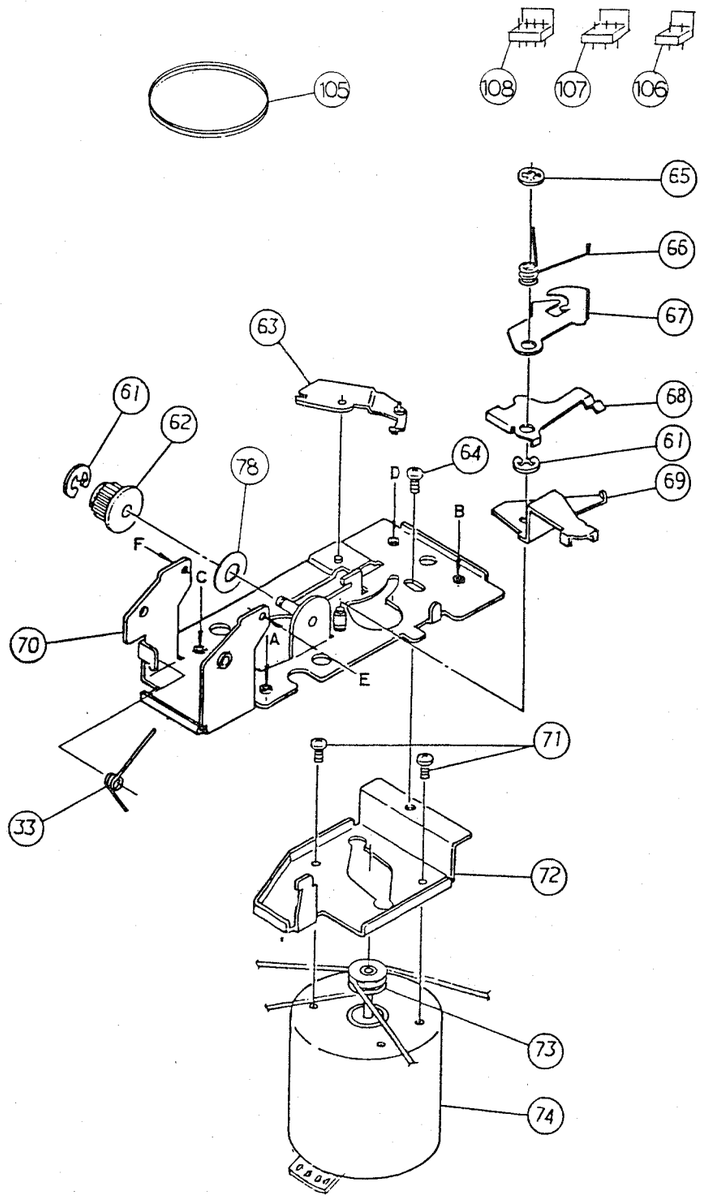
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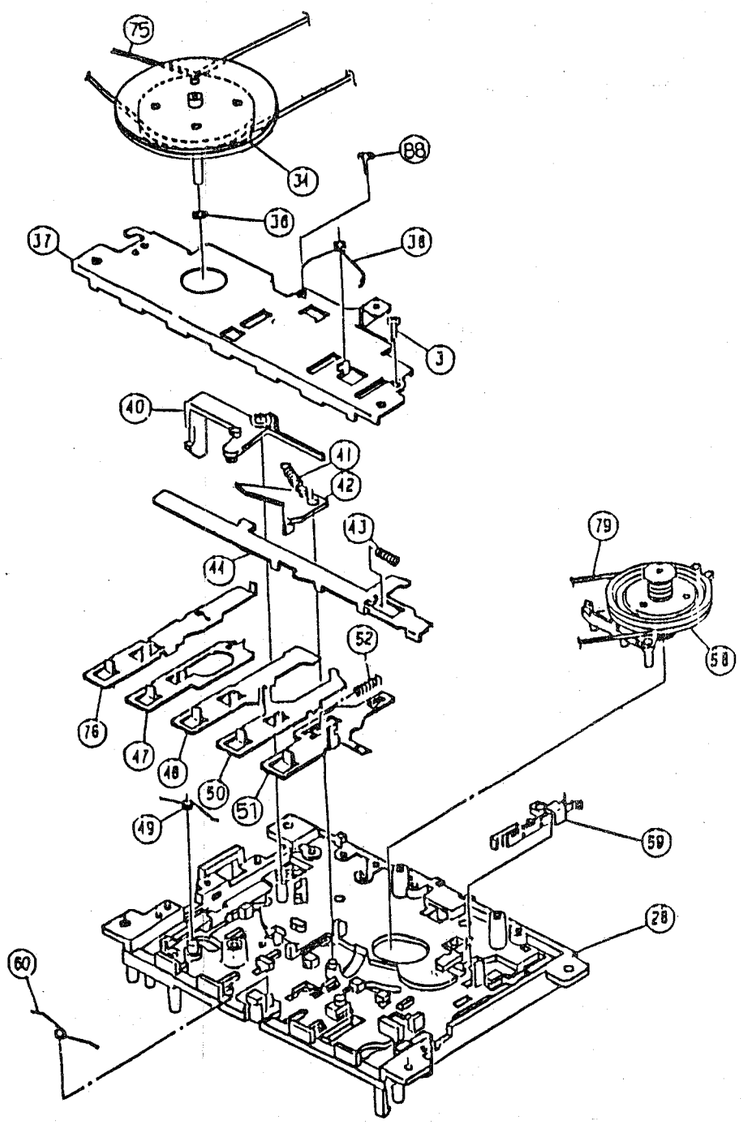
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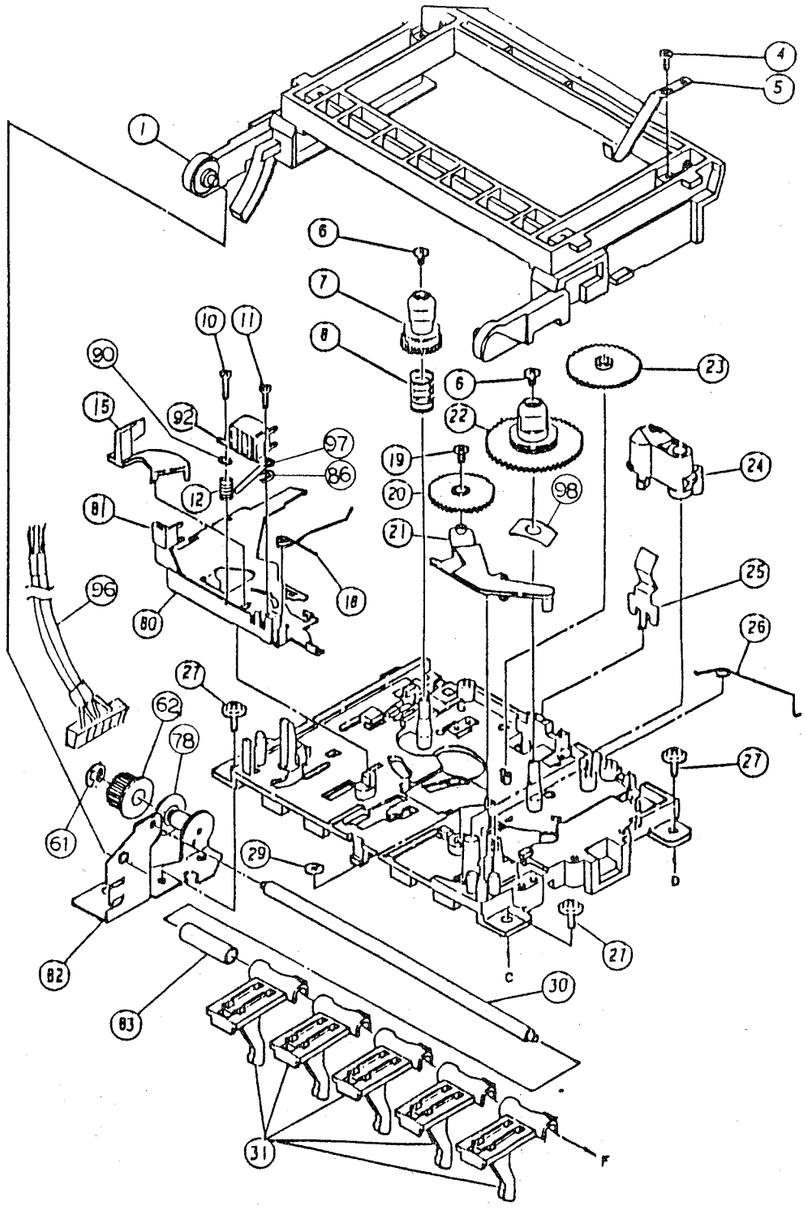
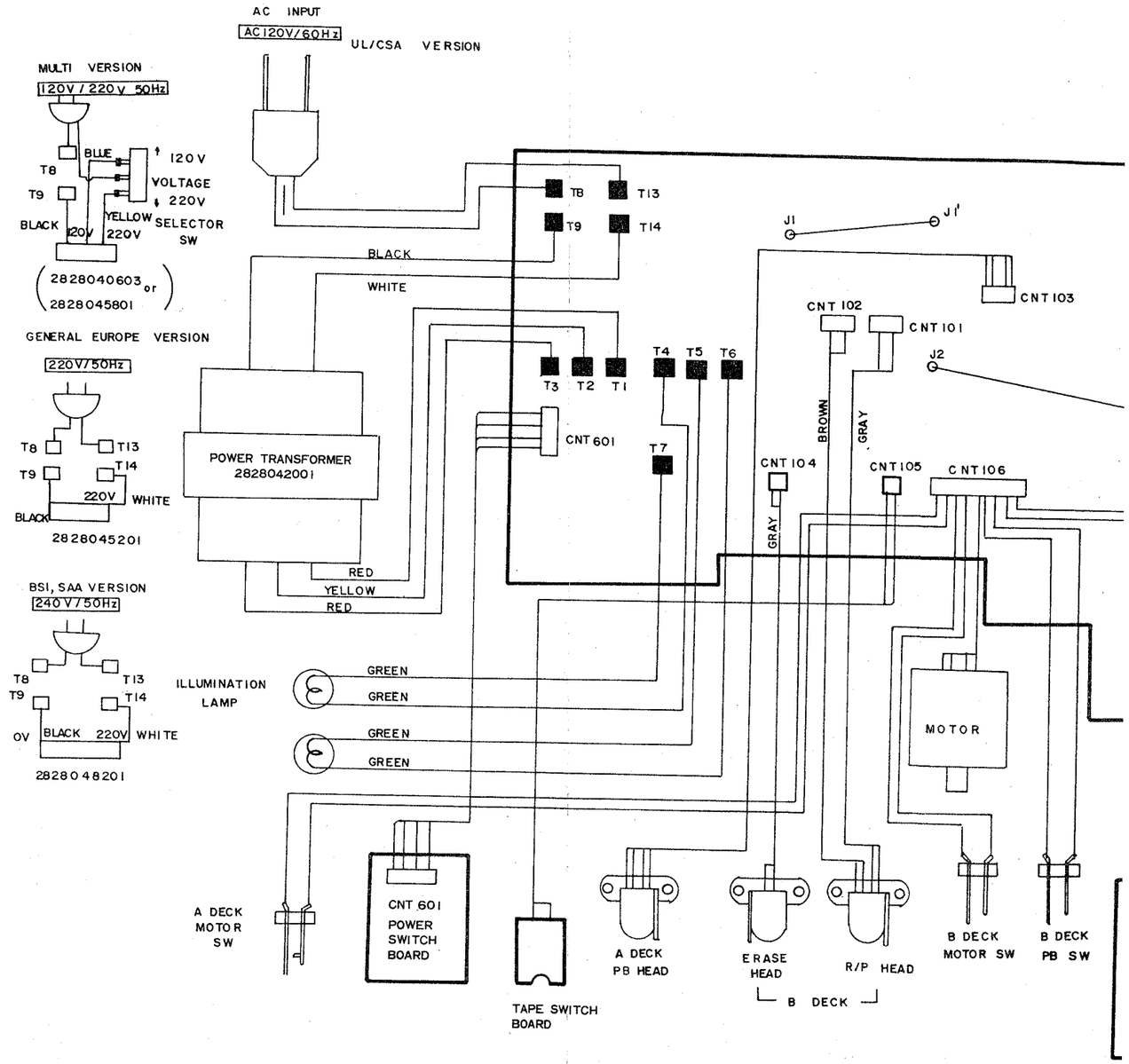
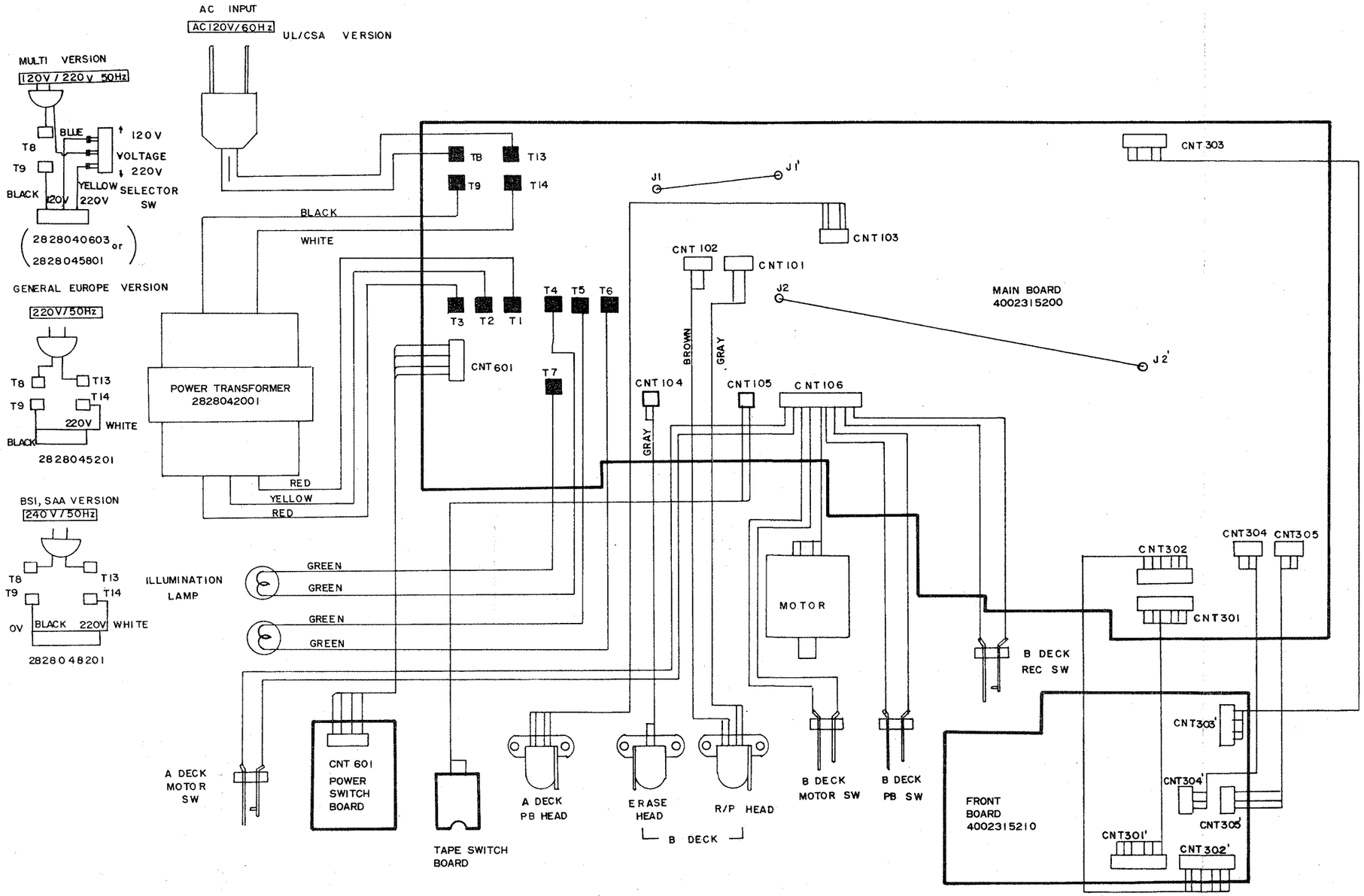


Point to Point Wiring Diagram



Point to Point Wiring Diagram

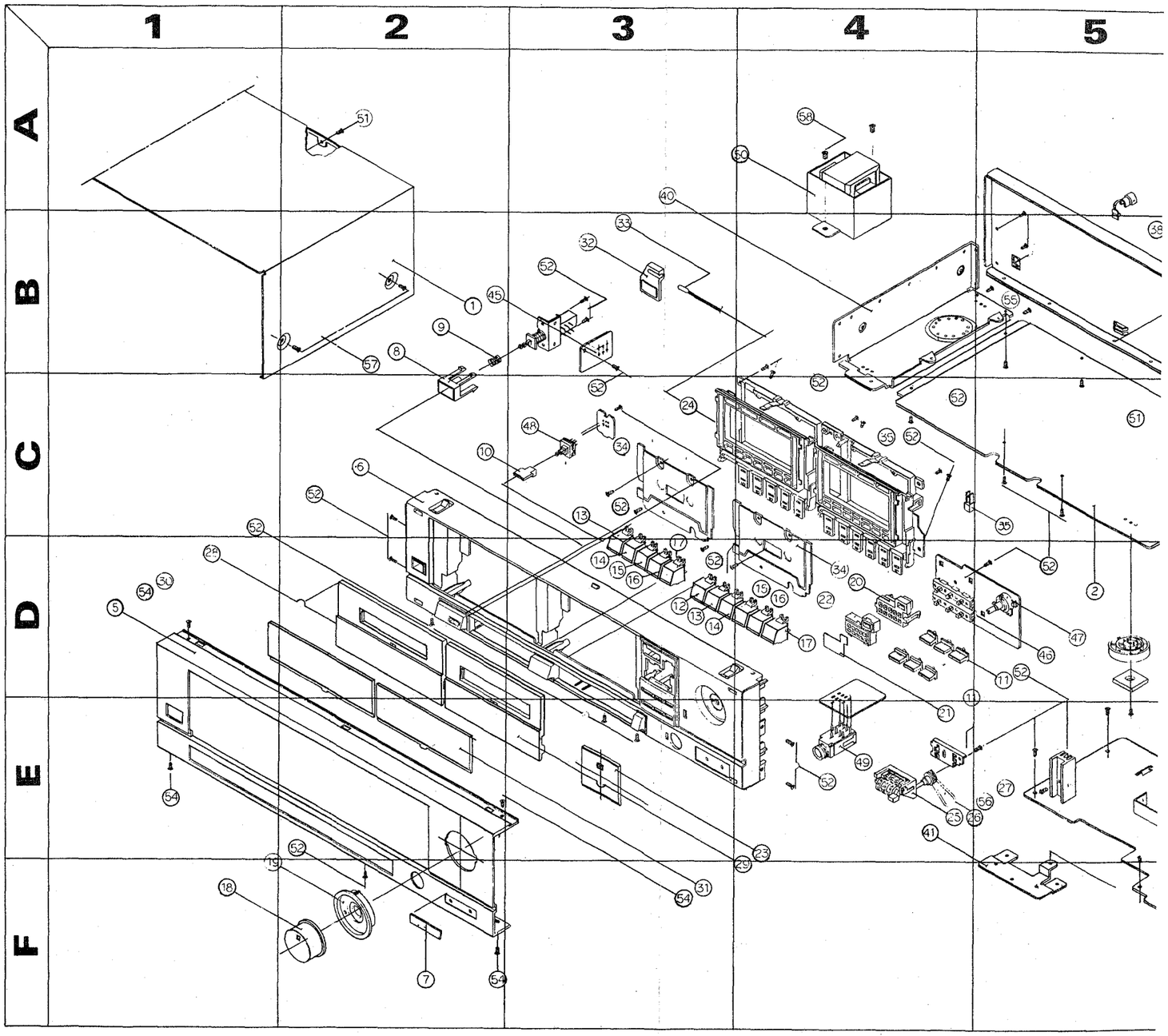


Mechanical Parts List

Q'T	PARTS NO.	DESCRIPTION	POSITION	Q'TY	VERSION
1	046122015711	COVER TOP	2B	1	
2	6122411910	COVER BOTTOM	5D	1	
3	046035101411	BASE FOOT	6D	4	
4	6725002110	CUSHION FOOT	6D	4	
5	048602014921	FRONT PANEL(AI)	1D	1	
6	048521003911	BODY FRONT	2C	1	
7	048535019011	NAME BADGE	2F	1	
8	048545048211	BUTTON POWER	2B	1	
9	6555004340	SPRING	2B	1	
10	8543015610	BUTTON PUSH(1KEY)	2C	1	
11	8545048310	BUTTON PUSH(1KEY)	5D	6	
12	048543013611	BUTTON DECK(REC)	3D	1	
13	048543013612	BUTTON DECK(PLAY)	3C	2	
14	048543013613	BUTTON DECK(REW)	3D	2	
15	048543013614	BUTTON DECK(F.F)	3D	2	
16	048543013615	BUTTON DECK(STOP/EJ)	3D	2	
17	048543013616	BUTTON DECK(PAUSE)	4D	2	
18	8543013710	KNOB ROTARY	1F	1	
19	8523009210	DECORATION RING	1F	1	
20	6043001010	GUIDE LED(A)	4D	1	
21	8535020210	DIFFUSER	4E	1	
22	6042001110	GUIDE LED(B)	4D	1	
23	048555019311	LED WINDOW	4F	1	
24	5708007810	DECK MECHA	3C	1	
25	5318001410	TAPE COUNTER	4E	1	
26	7165000610	BELT COUNTER	5E	1	
27	6505080510	BKT COUNTER	5E	1	
28	048563002911	DOOR DECK(A)	1D	1	
29	048563003011	DOOR DECK(B)	4F	1	
30	048553007611	DOOR WINDOW(A)	1D	1	
31	048553007711	DOOR WINDOW(B)	3F	1	
32	8555018810	INDICATOR TAPE	3B	2	
33	2528204610	LAMP	3B	2	
34	048685003711	DECK COVER	3C	2	
35	4648500910	LEAF SW	4C	1	
36	046102021711	BACK CHASSIS	5B	1	
	046102021712	BACK CHASSIS	5B	1	B
	046102021713	BACK CHASSIS	5B	1	C
	046102021714	BACK CHASSIS	5B	1	D
	046102021715	BACK CHASSIS	5B	1	E
	046102021716	BACK CHASSIS	5B	1	F
37	4308001410	CORD AC POWER	6B	1	A,B
	4308000430	CORD AC POWER	6B	1	C,D,F
	4308003610	CORD AC POWER	6B	1	E
38	6518000710	STOPPER CORD	5B	1	
39	6123618310	FRAME SIDE(R)	6D	1	
40	6122614810	FRAME SIDE(L)	3A	1	
41	6505080410	BKT P.C.B	4E	1	
42	7505200710	H/SINK REG TR	6D	1	
43	4438100410	JACK RCA(4P)	6E	1	
44	6165128710	SHIELD FENCE	6E	1	
45	4628034310	SW. POWER	2B	1	
46	4628047910	SW. PUSH(3KEY)	5D	2	
47	3208045110	VR ROTARY(50KAx2)	5D	1	
48	4628005610	SW PUSH(1KEY)	3C	1	
49	4438008910	PHONE JACK	4E	1	
50	2828040610	TRANSFORMER	4A	1	
	3828045810	TRANSFORMER	4A	1	B
	2828045201	TRANSFORMER	4A	1	C,D,F
	2828048201	TRANSFORMER	4A	1	E
51	8119230063	SCREW #2PTC 3x6B	2A	8	
52	8109230081	SCREW #2BTC 3x8Y	2C	26	
53	8159230081	SCREW #2PTC 3x8Y	6D	4	
54	8129230081	SCREW #2FTC 3x8Y	1D	4	
56	8129230081	SCREW #2PTC 3x8B	5E	1	
	8129230083	SCREW #2PTC 3x8B	5E	2	B
57	8159240083	SCREW WSAM 4x8B	2B	4	
	S618000410	SW SLIDE	2B	1	B
	6515000630	HOLDER VOLTAGE	2B	1	B

※ REMARK

VERSION	COUNTRY	AC INPUTS	REMARK(SAFETY)
A	USA/CANADA	120V/60Hz	U.L/CSA
B	US MILITARY/OTHER COUNTRIES	120V/60Hz. 220V/50Hz	
C	GENERAL EUROPE	220V/50Hz	IEC-65
D	GERMANY	220V/50Hz	FTZ
E	BRITISH/AUSTRALIA	240V/50Hz	BSI/SAA
F	SCANDINABIAN COUNTRY	220V/50Hz	Ⓢ Ⓝ Ⓓ ⓕⓘ Ⓘ



ERSION

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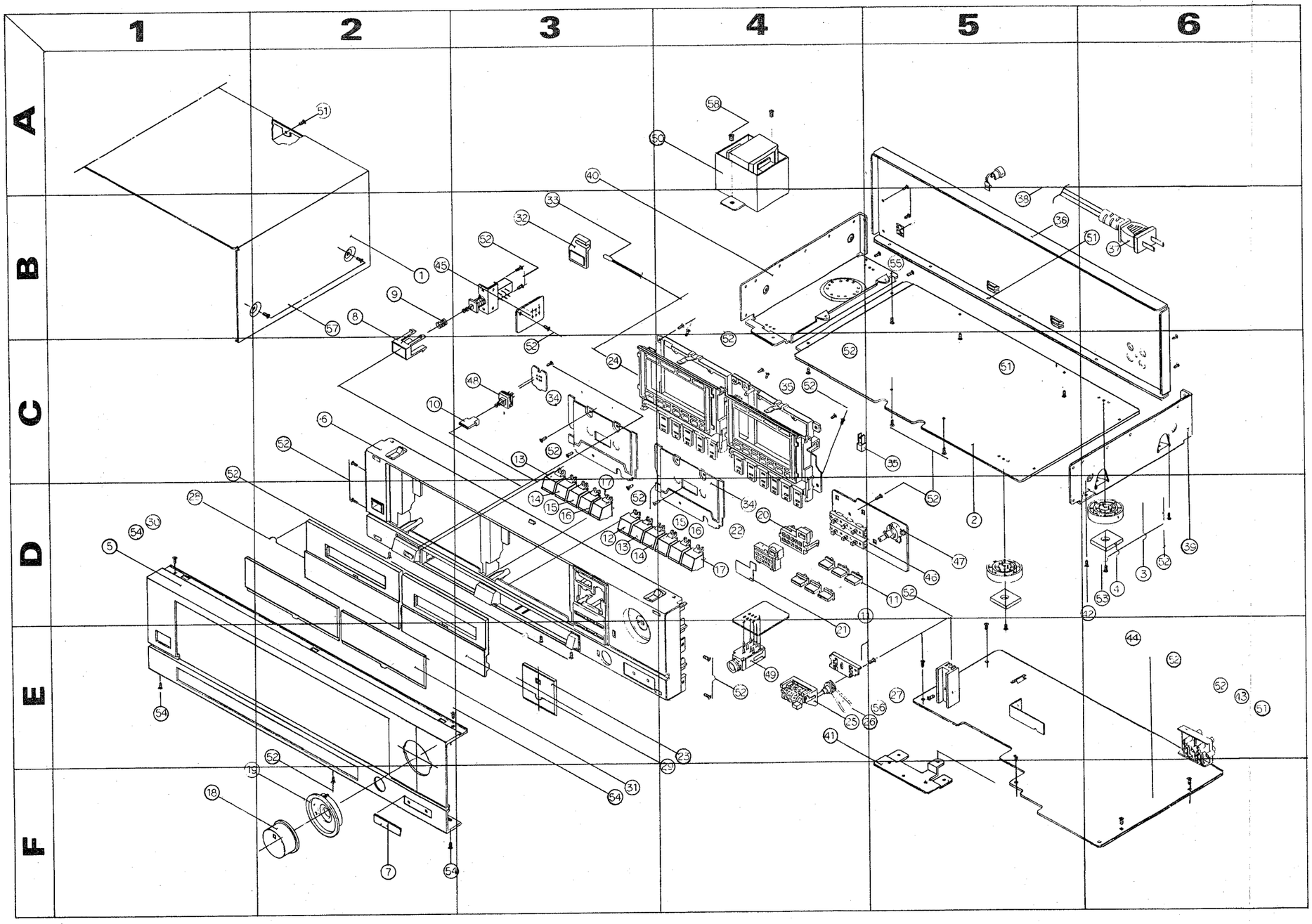
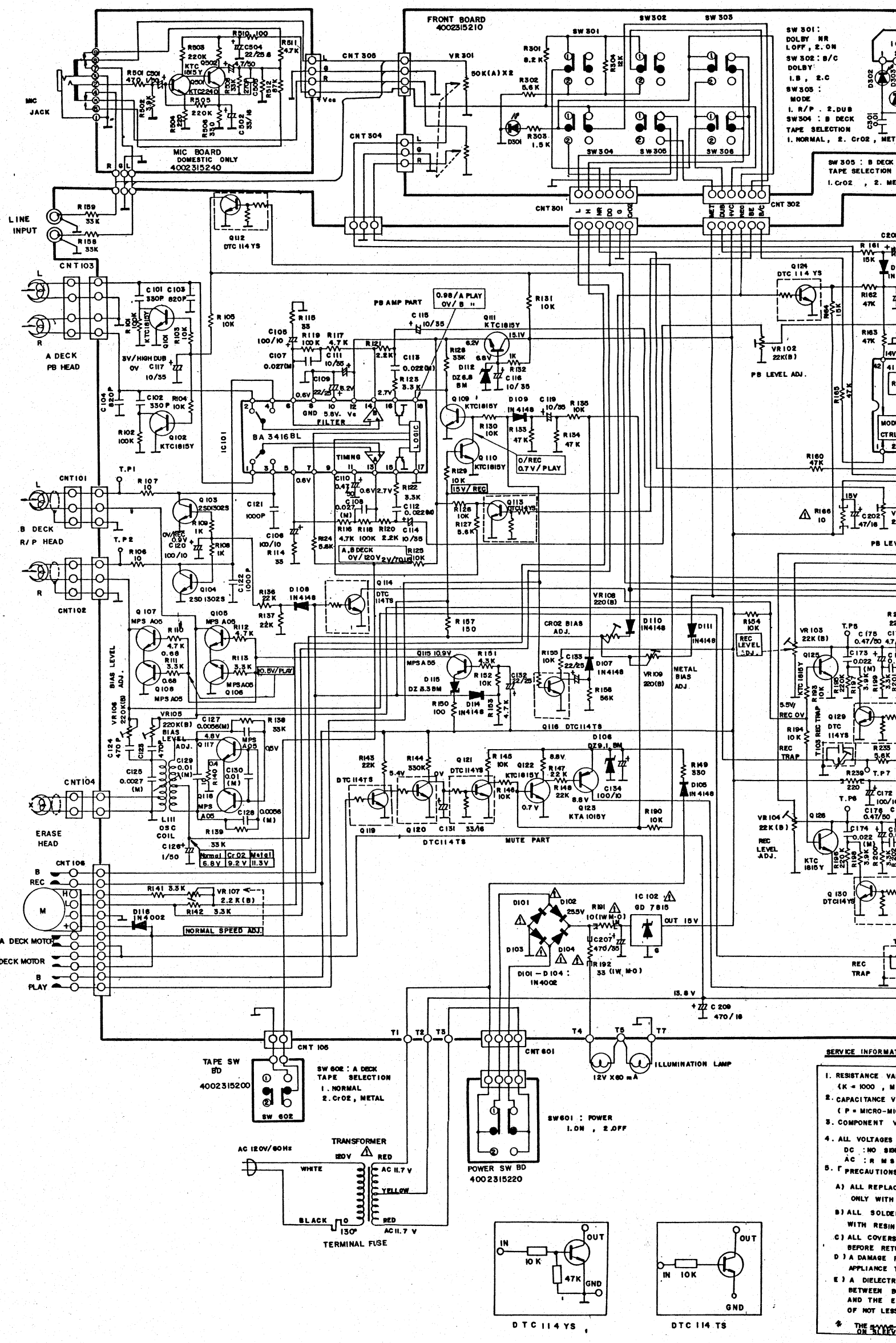


Schmatic Diagram

DD-1130



iagram
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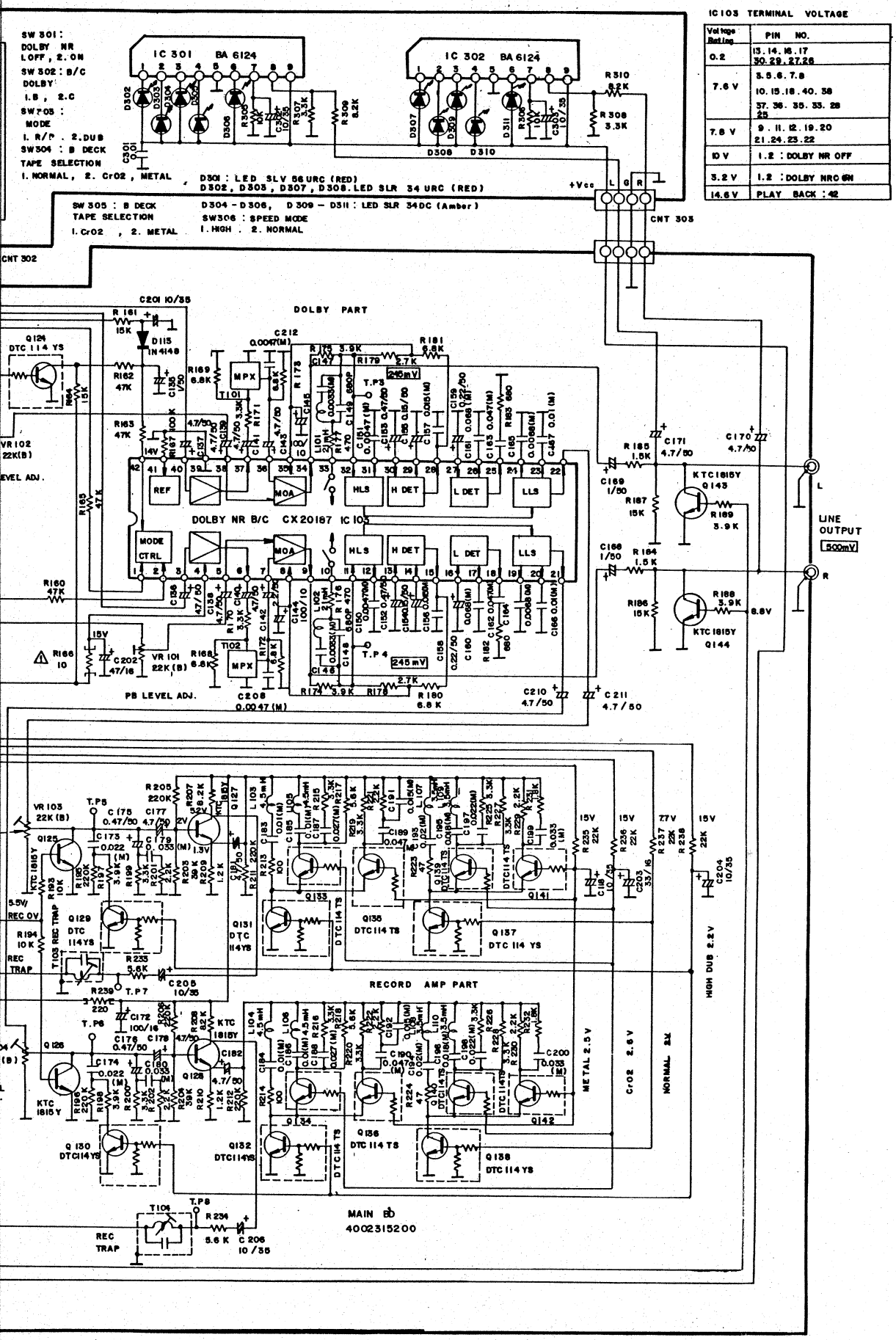


IC103 TERMINAL VOLTAGE

Voltage Rating	PIN NO.
0.2	13.14.16.17 30.29.27.26
7.6 V	3.5.6.7.8 10.15.18.40.38 37.36.35.33.28 25
7.8 V	9.11.12.19.20 21.24.23.22
10 V	1.2 : DOLBY NR OFF
3.2 V	1.2 : DOLBY NR ON
14.6 V	PLAY BACK : 42

SERVICE INFORMATION

1. RESISTANCE VALUES ARE INDICATED IN OHMS UNLESS OTHERWISE SPECIFIED. (K = 1000 , M = 1,000,000)
2. CAPACITANCE VALUES ARE SHOWN IN MICROFARADS UNLESS OTHERWISE NOTED. (P = MICRO-MICRO FARADS)
3. COMPONENT VALUES ARE SUBJECT TO CHANGE WITHOUT NOTICES.
4. ALL VOLTAGES ARE REFERENCED TO GROUND UNDER THE FOLLOWING CONDITION : DC : NO SIGNAL EXCEPT WHERE INDICATED. AC : R M S ▭ : DOLBY LEVEL TAPE : TEAC MTT - 150, A-BEX TCC-150
5. PRECAUTIONS

A) ALL REPLACEMENT COMPONENTS IDENTIFIED BY ⚠ MUST BE REPLACED ONLY WITH ORIGINAL TYPE SPECIFIED BY THE MANUFACTURER.

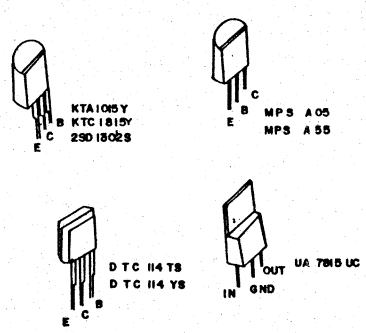
B) ALL SOLDERING MUST BE DOWN A PROFESSIONAL MANNER USING SOLDER WITH RESIN CORE ONLY.

C) ALL COVERS , SHIELDS AND INSULATING SPACERS MUST BE REPLACED BEFORE RETURNING APPLIANCE TO CUSTOMER.

D) A DAMAGE POWER SUPPLY CORD MUST BE REPLACED BEFORE RETURNING APPLIANCE TO CUSTOMER .

E) A DIELECTRIC TEST CONSISTING OF 1080 VAC 60 HZ IS TO BE APPLIED BETWEEN BOTH BLADES OF THE POWER SUPPLY CORD ATTACHMENT PLUG AND THE EXPOSED CONDUCTIVE SURFACE OF THE APPLIANCE FOR A PERIOD OF NOT LESS THAN ONE SECOND BEFORE RETURNING APPLIANCE TO CUSTOMER.

※ THE ~~~ MARKED RESISTANCE ARE MOUNTED ABOVE P.C.B ON SLEEVE



Block Diagram